

For SN 10/766, 981  
9/7/2006

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L1 FILE 'LREGISTRY' ENTERED AT 08:49:26 ON 07 SEP 2006  
STRUCTURE

L2 FILE 'REGISTRY' ENTERED AT 08:51:31 ON 07 SEP 2006  
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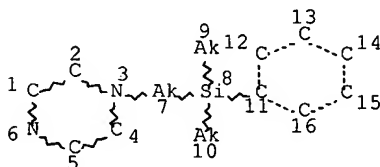
L4 FILE 'HCAPLUS' ENTERED AT 08:56:00 ON 07 SEP 2006  
L5 5 SEA ABB=ON PLU=ON L3  
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=> file reg

FILE 'REGISTRY' ENTERED AT 09:03:46 ON 07 SEP 2006  
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=> d l4 que stat

L1 STR



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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE  
L3 10 SEA FILE=REGISTRY SSS FUL L1  
L4 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L3

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 09:03:56 ON 07 SEP 2006  
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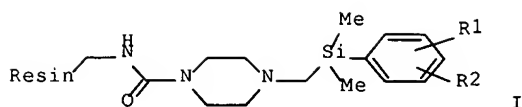
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L4 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2002:594901 HCAPLUS Full-text  
DOCUMENT NUMBER: 137:140940  
TITLE: Polymers based on N-carbamyl-N'-dimethylsilyl  
methyl-piperazine traceless linkers for the  
solid phase synthesis of phenyl-based libraries  
INVENTOR(S): Cereda, Enzo; Pellegrini, Carlo Maria; Quai,  
Monica; Barbaglia, Walter

PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma K.-G., Germany  
 SOURCE: PCT Int. Appl., 25 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
WO 2002060960	A2	20020808	WO 2002-EP312	20020115
WO 2002060960 A3 20021017 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2431927	AA	20020808	CA 2002-2431927	20020115
EP 1360211	A2	20031112	EP 2002-703549	20020115
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004518015	T2	20040617	JP 2002-561527	20020115
US 2002120072	A1	20020829	US 2002-58433	20020128
US 6740712	B2	20040525		
US 2004186243	A1	20040923	US 2004-766981	20040129
PRIORITY APPLN. INFO.:				
			EP 2001-101946	A 20010129
			US 2001-273312P	P 20010302
			WO 2002-EP312	W 20020115
			US 2002-58433	A3 20020128

OTHER SOURCE(S): MARPAT 137:140940  
 GI



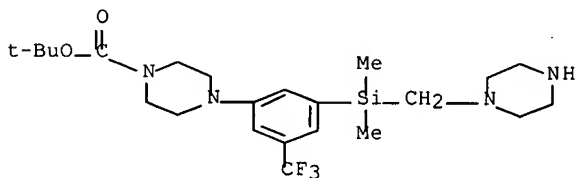
AB Polymers contg. silicon linkers based on the carbamyl piperazine moiety I [Resin = (divinylbenzene - or polyethylene glycol-crosslinked) polystyrene; R1 = H, C1-6-alkyl, C2-6-alkenyl, C2-6-alkynyl, C1-6-alkoxy, halogen, NO<sub>2</sub>, CF<sub>3</sub>; R2 = hydroxy, amino, formyl, nitrogen heterocycle] are prepd. for use in the solid phase synthesis of compds. or libraries of compds. embracing a Ph ring in their structure. A polymer was prepd. from isocyanate-modified polystyrene and 1-[[[3-(1,3-dioxolan-2-yl)-phenyl]-dimethylsilyl]-methyl]-piperazine.

IT 444727-18-8DP, polymer-supported 444727-19-9DP, polymer-supported 444727-20-2DP, polymer-supported 444727-21-3DP, polymer-supported

RL: IMF (Industrial manufacture); PREP (Preparation)  
(polymers based on N-carbamyl-N'-dimethylsilyl methyl-piperazine traceless linkers for the solid phase synthesis of phenyl-based libraries)

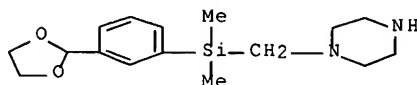
RN 444727-18-8 HCAPLUS

CN 1-Piperazinecarboxylic acid, 4-[3-[dimethyl(1-piperazinylmethyl)silyl]-5-(trifluoromethyl)phenyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



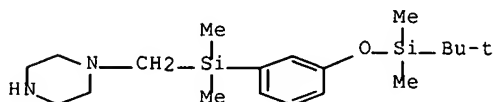
RN 444727-19-9 HCAPLUS

CN Piperazine, 1-[[[3-[(1,3-dioxolan-2-yl)phenyl]dimethylsilyl]methyl]- (9CI) (CA INDEX NAME)



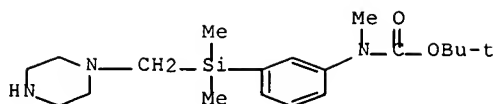
RN 444727-20-2 HCAPLUS

CN Piperazine, 1-[[[3-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]phenyl]dimethylsilyl]methyl]- (9CI) (CA INDEX NAME)



RN 444727-21-3 HCAPLUS

CN Carbamic acid, [3-[dimethyl(1-piperazinylmethyl)silyl]phenyl]methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



IC ICM C08F008-42  
ICS C08G065-32  
CC 35-8 (Chemistry of Synthetic High Polymers)  
IT **444727-18-8DP**, polymer-supported **444727-19-9DP**,  
polymer-supported **444727-20-2DP**, polymer-supported  
**444727-21-3DP**, polymer-supported  
RL: IMF (Industrial manufacture); PREP (Preparation)  
(polymers based on N-carbamyl-N'-dimethylsilyl methyl-piperazine  
traceless linkers for the solid phase synthesis of phenyl-based  
libraries)

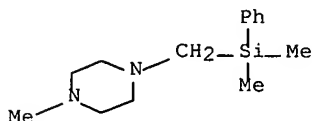
L4 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1996:679859 HCAPLUS Full-text  
DOCUMENT NUMBER: 126:8175  
TITLE: Reductive carbon-sulfur bond cleavage: a simple  
pathway to nonstabilized (lithiomethyl)amines  
AUTHOR(S): Strohmann, Carsten; Abele, Bors Cajus  
CORPORATE SOURCE: Dipl. Chem. B. C. Abele, Univ. Im Stadtwald,  
Saarbruecken, D-66041, Germany  
SOURCE: Angewandte Chemie, International Edition in  
English (1996), 35(20), 2378-2380  
CODEN: ACIEAY; ISSN: 0570-0833  
PUBLISHER: VCH  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 126:8175

AB A simple pathway to nonstabilized mono(lithiomethyl)amines, e.g., LiCH<sub>2</sub>NEt<sub>2</sub>, that are  
not substituted on the α-carbon atom, by reductive C-S bond cleavage is described. The  
use of these synthetic building blocks in the construction of org. and organoelement  
comps. is also described.

IT **183873-60-1P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(simple pathway to nonstabilized (lithiomethyl)amines and their  
use in prepn. of org. and organoelement comps.)

RN 183873-60-1 HCAPLUS

CN Piperazine, 1-[(dimethylphenylsilyl)methyl]-4-methyl- (9CI) (CA  
INDEX NAME)



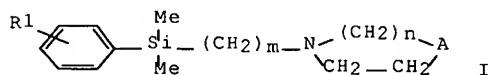
CC 29-6 (Organometallic and Organometalloidal Compounds)  
IT 21579-78-2P 54926-36-2P 87625-35-2P 104017-39-2P  
110503-25-8P 125263-07-2P 159329-87-0P **183873-60-1P**  
183873-61-2P 183873-62-3P 183873-63-4P 183873-64-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(simple pathway to nonstabilized (lithiomethyl)amines and their  
use in prepn. of org. and organoelement comps.)

L4 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1992:241938 HCAPLUS Full-text

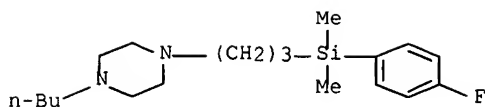
DOCUMENT NUMBER: 116:241938  
 TITLE: Pharmaceutical compositions containing organosilane derivatives as muscle relaxants and antiparkinsonism agents  
 INVENTOR(S): Farkas, Sandor; Foldeak, Sandor; Karpati, Egon; Hegyes, Peter; Kreidl, Janos; Szporny, Laszlo; Czibula, Laszlo; Vass Petofi, Szilvia  
 PATENT ASSIGNEE(S): Richter, Gedeon, Vegyeszeti Gyar Rt., Hung.  
 SOURCE: Eur. Pat. Appl., 7 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
EP 472304	A2	19920226	EP 1991-306935	199107 29
EP 472304	A3	19920422		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
HU 58205	A2	19920228	HU 1990-4646	199007 27
HU 206625	B	19921228		
JP 04270223	A2	19920925	JP 1991-276053	199107 29
PRIORITY APPLN. INFO.:			HU 1990-4646	A 199007 27

OTHER SOURCE(S): MARPAT 116:241938  
 GI



- AB Pharmaceutical compns. contg. title compds. [I; R1=H, halogen; A=O, CH2, NR(R=H, C1-4 alkyl); m=1-3, n=1-2] are useful as muscle relaxants and antiparkinsonism agents. Chloromethyldimethylphenylsilane was refluxed with piperidine, and the oily residue thus produced was reacted with fumaric acid to obtain N-[dimethylphenylsilyl)methyl]piperidine fumarate (II). The ED50 of II in Straub's tail test in mice was 30.7 mg/kg i.p. A tablet contained II 50, gelatin 3, Mg stearate 2, talc 5, starch 45, and lactose 95mg.
- IT **141497-22-5P**  
 RL: PREP (Preparation)  
 (prepn. of, as muscle relaxant, pharmaceutical compn. contg.)
- RN 141497-22-5 HCAPLUS
- CN Piperazine, 1-butyl-4-[3-[(4-fluorophenyl)dimethylsilyl]propyl]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

IC ICM A61K031-695  
 CC 63-6 (Pharmaceuticals)  
 Section cross-reference(s): 1  
 IT 141497-14-5P 141497-15-6P 141497-16-7P 141497-18-9P  
 141497-19-0P 141497-20-3P 141497-21-4P **141497-22-5P**  
 RL: PREP (Preparation)  
 (prepn. of, as muscle relaxant, pharmaceutical compn. contg.)

L4 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1969:28985 HCAPLUS Full-text  
 DOCUMENT NUMBER: 70:28985  
 TITLE: Thermal conversions of  $\beta$ -(N-ethylenimino)ethylsilanes  
 AUTHOR(S): Nametkin, N. S.; Perchenko, V. N.; Grushevenko, I. A.  
 CORPORATE SOURCE: Inst. Neftekhim. Sin. im. Topchieva, Moscow, USSR  
 SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1968), (9), 2078-81  
 CODEN: IASKA6; ISSN: 0002-3353  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian

GI For diagram(s), see printed CA Issue.

AB Et<sub>2</sub>Si(CH<sub>2</sub>CH<sub>2</sub>R)<sub>2</sub> (R = 1-aziridinyl) heated 5 hrs. at 300° gave 90% viscous yellow oil, contg. the ethylenimine ring and piperazine ring bands in the ir spectrum; evidently the product was I. In 8 hrs. this reaction gave a product devoid of aziridinyl rings and insol. in C<sub>6</sub>H<sub>6</sub>; this was probably a cross-linked modification of I. Heated at 250° 3 hrs. MePhSi(CH<sub>2</sub>CH<sub>2</sub>R)<sub>2</sub> similarly gave a yellow oil of type I, while in 5 hrs. a similar product but with higher mol. wt. was formed, and in 8 hrs. infusible solid was produced. Heated at 300° 5 hrs. Et<sub>3</sub>SiCH<sub>2</sub>CH<sub>2</sub>R gave 70% product, b<sub>2</sub> 59-62°, and 24% product, b<sub>2</sub> 140-85°; the latter was crude linear dimer similar to I, b<sub>2</sub> 155-62°, n<sub>20</sub>D 1.4740, and its isomer, b<sub>2</sub> 178-81°, 1.4800, which was evidently a cyclic dimer, whose ir spectrum was comparable to that of reaction product of Et<sub>3</sub>SiCH:CH<sub>2</sub> with the di-Li deriv. of piperazine. The residues gave a product, b<sub>2</sub> 190-205°, which had only the opened aziridine ring and had the compn. C<sub>30</sub>H<sub>72</sub>Si<sub>3</sub>N<sub>3</sub>. 1,4-Bis(triethylsilylethyl)-piperazine heated at 300° 5 hrs. gave no evidence of change. Me<sub>2</sub>PhSiCH<sub>2</sub>CH<sub>2</sub>R heated at 250° 5 hrs. gave 24% linear and cyclic dimers, b<sub>1</sub> 230-2°, which were inseparable by distn.

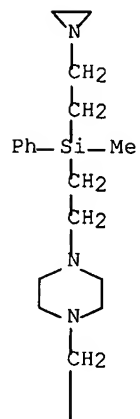
IT **20933-04-4P 22337-25-3P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)

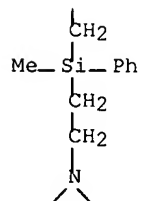
RN 20933-04-4 HCAPLUS

CN Piperazine, 1,4-bis[2-[[2-(1-aziridinyl)ethyl]methylphenylsilyl]ethyl]- (8CI) (CA INDEX NAME)

PAGE 1-A

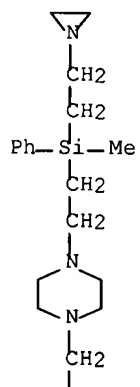


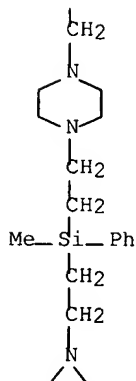
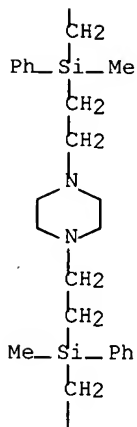
PAGE 2-A



RN 22337-25-3 HCAPLUS  
CN Piperazine, 1,4-bis[2-[[2-[[2-(1-aziridinyl)ethyl]methylphenyl  
silyl]ethyl]-1-piperazinyl]ethyl]methylphenylsilyl]ethyl]- (8CI)  
(CA INDEX NAME)

PAGE 1-A





CC 29 (Organometallic and Organometalloidal Compounds)  
 IT 4215-81-0P 4215-82-1P 20933-03-3P 20933-04-4P  
 22337-25-3P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)

L4 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1965:431791 HCAPLUS Full-text  
 DOCUMENT NUMBER: 63:31791  
 ORIGINAL REFERENCE NO.: 63:5668g-h,5669a

TITLE: Transformations of  $\beta$ -N-ethyleniminoethylsilanes at elevated temperatures and in the presence of nucleophilic and electrophilic reagents

AUTHOR(S): Nametkin, N. S.; Grushevenko, I. A.; Perchenko, V. N.

SOURCE: Doklady Akademii Nauk SSSR (1965), 162(2), 347-9  
 CODEN: DANKAS; ISSN: 0002-3264

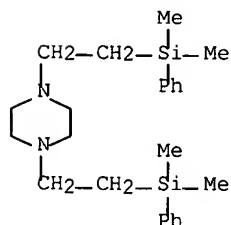
DOCUMENT TYPE: Journal  
 LANGUAGE: Russian

AB  $R_3SiCH_2CH_2N(CH_2)_2$  were unchanged after 5 hrs. at  $200^\circ$  while at  $250-300^\circ$  they gave much material resulting from ring opening reactions; thus were formed polymers of type  $[-N(CH_2CH_2SiR_3)CH_2CH_2-]_x$  and dimers of type  $R_3SiCH_2CH_2N(CH_2CH_2)_2NCH_2CH_2SiR_3$  (I).  
 $Et_3SiCH_2CH_2N(CH_2)_2$  and NaI in  $Me_2CO$  gave in 5 hrs. refluxing 22-50% I (R = Et), b1 182-



3°, n<sub>D</sub> 1.4805, d<sub>20</sub> 0.8878. Similarly was obtained the product with R<sub>3</sub> = (Me<sub>2</sub>, Ph), m. 31-2°. Similar reaction with catalytic amt. of AlCl<sub>3</sub> in heptane gave in 1 hr. up to 90% I; similar treatment of PhCH<sub>2</sub>CH<sub>2</sub>N(CH<sub>2</sub>)<sub>2</sub> with AlCl<sub>3</sub> gave a polymer [-CH<sub>2</sub>CH<sub>2</sub>N(CH<sub>2</sub>CH<sub>2</sub>Ph)-]<sub>5</sub>. Thus either nucleophilic or electrophilic reagents convert these silylethylenimines into I as the sole identifiable products.

IT 2288-06-4, Piperazine, 1,4-bis[2-(dimethylphenylsilyl)ethyl]-  
(prepn. of)  
RN 2288-06-4 HCAPLUS  
CN Piperazine, 1,4-bis[2-(dimethylphenylsilyl)ethyl]- (7CI, 8CI) (CA  
INDEX NAME)



CC 39 (Organometallic and Organometalloidal Compounds)  
IT 2287-74-3, Piperazine, 1,4-bis[2-(triethylsilyl)ethyl]-  
2288-06-4, Piperazine, 1,4-bis[2-(dimethylphenylsilyl)ethyl]-  
(prepn. of)

=>